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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/723,480	11/28/2000	Dave McDysan	RIC00044	7587

25537 7590 08/12/2005

MCI, INC
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EXAMINER	
BATES, KEVIN T	

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/723,480	MCDYSAN ET AL.	
	Examiner	Art Unit	
	Kevin Bates	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

This Office Action is in response to a communication made on May 13, 2005.

Claims 1-40 are pending in this application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1, 20, and 40 are indefinite do to the lines "communicating a first portion of the received messages" and "routing a second portion of the received messages" a portion of the received messages could mean some of the messages such as a subset of the total messages received or it could mean part of each message, such as taking the header off a packet can be considered removing a portion of the message and communication said portion. Necessary action is needed in clearing up this indefiniteness.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been

obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 6-9, 11-15, 20-24, 26-29, 30-34, and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen (6434618) in view of Bhattacharya (6587466).

Regarding claims 1 and 21, Cohen teaches a method of communication in, a network access system including a processor (Column 4, lines 14 – 16) and a programmable access device (Column 3, lines 19 – 21), said method comprising: transmitting a control message from the processor to the programmable access device to establish a configuration of the programmable access device (Column 10, lines 56 – 63; Column 11, lines 55 – 62, where the dispatcher with the packet filter has programmed flows to allow to pass and those flows can be changed by the gateway programs and the admission daemon; Column 10, lines 25 – 28); receiving, by the programmable access device, messages from a first network external to the network access system via a first network interface (Column 3, lines 36 – 40); communicating a first portion of the received messages from the programmable access device to the processor for service processing in accordance with the configuration (Column 4, lines 14 – 16); and routing a second portion of the received messages not communicated to the external processor from the network access system via a second network interface different (Column 4, lines 19 – 29) from the first network interface to a second network external to the first network access system, wherein the second network is different from the first network (Column 4, lines 19 – 29).

Cohen teaches that processor handling some of the packets to be a process on the programmed gateway, not an external processor.

Bhattacharya teaches a system that has an edge device that handles packets, but is coupled to an external processor that can make policy decisions on some of the packets received (Column 12, lines 8 – 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Bhattacharya's teaching of having an external server handling the policy decisions in an edge device in Cohen's system in order to outsource the policy decisions freeing up the policy server to handle more than just one access device (Column 12, lines 12 – 14).

Regarding claim 40, Cohen teaches a distributed router comprising: a first network interface through which packets are communicated with a first network (Column 3, lines 36 – 40); a second network interface different from the first network interface through which packets are communicated with a second network different from the first network (Column 4, lines 19 – 29); a programmable access device configured to input messages from the first network via the first network interface (Column 3, lines 19 – 21); and an processor configured to receive, from the programmable access device (Column 4, lines 14 – 16), a first portion of the input messages (Column 4, lines 14 – 16) and to transmit a control message to the programmable access device specifying a configuration to control the selection of the first portion (Column 10, lines 56 – 63; Column 11, lines 55 – 62, where the dispatcher with the packet filter has programmed flows to allow to pass and those flows can be changed by the

gateway programs and the admission daemon; Column 10, lines 25 – 28), wherein the programmable access device forwards a second portion of the input messages not received by the external processor for routing via the second network interface to the second network (Column 4, lines 19 – 29).

Cohen teaches that processor handling some of the packets to be a process on the programmed gateway, not an external processor.

Bhattacharya teaches a system that has an edge device that handles packets, but is coupled to an external processor that can make policy decisions on some of the packets received (Column 12, lines 8 – 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Bhattacharya's teaching of having an external server handling the policy decisions in an edge device in Cohen's system in order to outsource the policy decisions freeing up the policy server to handle more than just one access device (Column 12, lines 12 – 14).

Regarding claim 2 and 22, Cohen teaches that transmitting a control message comprises transmitting a filter control message to establish a configuration of a packet header filter in the programmable access device (Column 5, lines 20 – 25; Column 5, line 66 – Column 6, line 9); and communicating messages comprises communicating network messages filtered from a packet flow by the packet header filter of the programmable access device (Column 4, lines 11 – 16; Column 5, lines 40 – 48).

Regarding claim 3 and 23, Cohen discloses limiting communication of network messages from the programmable access device to the external

processor by sending the programmable access device a message setting message interface flags in the programmable access device (Table 1; Column 6, lines 52 – Column 7, line 36, it shows that variables/flags that get set to program the dispatcher on how to operate).

Regarding claims 4 and 24, Cohen teaches transmitting a control message comprises transmitting a monitor control message to establish a configuration of a monitor in the programmable access device (Column 10, lines 25 – 28); and communicating messages comprises communicating reporting messages from the programmable access device to the external processor in response to the configuration of the monitor (Column 10, lines 28 – 32).

Regarding claims 6 and 26, Cohen teaches indicate transmitting a monitor control message comprises transmitting a threshold activity level (Column 10, lines 7 – 24).

Regarding claim 7 and 27, Cohen teaches transmitting a control message comprises transmitting a policer control message to establish a configuration of a policer in the programmable access device (Column 10, lines 7 – 24).

Regarding claims 8 and 28, Cohen teaches transmitting a control message comprises transmitting a forwarding table control message to establish a configuration of a forwarding table in the programmable access device (Column 10, lines 13 – 15).

Regarding claim 9, Cohen teaches establishing a configuration of a forwarding table comprises establishing a new forwarding table in the programmable access device (Column 10, lines 28 – 42).

Regarding claim 11 and 30, Cohen teaches teaches transmitting a control message comprises transmitting a shaper control message to establish a configuration of a shaper in the programmable access device (Column 10, lines 21 – 23).

Regarding claim 12 and 31, Cohen teaches teaches transmitting a control message from the external processor to the programmable access device to establish a configuration of the programmable access device comprises transmitting a control message specifying a source from which packets are not to be accepted; and the method further comprises dropping packets from the specified source by the programmable access device (Column 9, lines 6 – 18).

Regarding claim 13 and 32, Cohen teaches indicate that in response to service processing by the external processor, injecting a packet from the external processor into packet flow through the programmable access device (Column 4, lines 51 – 55).

Regarding claims 14 and 33, Cohen teaches transmitting a control message from the external processor to the programmable access device to establish a configuration of the programmable access device comprises transmitting a session deletion control message; and the method further comprises the programmable access device deleting a session specified by the session deletion control message (Column 10, lines 56 – 63; Column 11, lines 55 – 62).

Regarding claims 15 and 34, Cohen teaches the external processor signaling network hardware to establish a network connection in response to

receipt of a message from the programmable access device (Column 11, lines 53 – 62).

Regarding claims 20 and 39, the combination of Cohen and Bhattacharya teaches transmitting a control message comprises transmitting a control message via an intermediate communication network (Bhattacharya, Column 12, lines 8 – 12).

Claims 5 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen in view of Bhattacharya as applied to claims 1-4, 6-9, 11-15, 20-24, 26-29, 30-34, and 39-40 above, and further in view of Haas (5115432).

Regarding claim 5 and 25, Cohen does not explicitly indicate transmitting a monitor control message comprises transmitting a control message to establish a threshold number of allowed retransmissions. Haas teaches that an access device's configured policy should include a retransmissions policy (Column 7, lines 45 – Column 8, line 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Haas' teachings of a retransmission policy on Gibson's network node reconfiguration system in order to give the network management a tool to help reduce congestion in the system and obtain optimal performance (Column 7, lines 58 – 61).

Claims 16, 18, 35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen in view of Bhattacharya as applied to claims 1-4, 6-9, 11-15, 20-24, 26-29, 30-34, and 39-40 above, and further in view of Feldman (6055561).

Cohen in combination with Bhattacharya does not explicitly indicate exchanging keepalive and acknowledgment messages between the external processor and the programmable access device. Feldman discloses a network system with network nodes and teaches acknowledgement and keepalive messages are communicated between the nodes (Figure 5; Column 9, line 65 – Column 10, line 11). It would have been obvious to one or ordinary skill in the art at the time the invention was made to use Feldman's teaching of keepalive messages and acknowledgements in Cohen's and Bhattacharya's system in order to know that the communication paths are still open and the communications are being received (Column 9, line 65 – Column 10, line 11).

Claims 17 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen in view of Bhattacharya as applied to claims 1-4, 6-9, 11-15, 20-24, 26-29, 30-34, and 39-40 above, and further in view of Sauter (5537546).

Regarding claim 17 and 36, Cohen does not explicitly indicate transmitting a control message comprises accessing a control processor on the external processor via an application programming interface (Column 11, lines 14 – 17). Sauter teaches managing a network node with an API (Column 3, lines 40 – 45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Sauter's teaching in having the nodes operate according to an API to allow lots of different ediors to manage the contents and the configuration of the external processor (Column 1, lines 34 – 45).

Claims 19 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen in view of Bhattacharya as applied to claims 1-4, 6-9, 11-15, 20-24, 26-29, 30-34, and 39-40 above, and further in view of Grant (5027269).

Regarding claims 19 and 38, Cohen teaches communicating a state of a session from the programmable access device to the external processor (Column 10, lines 28 – 44), but does not explicitly indicate that in response to failure of a service controller servicing the session in the external processor (Column 22, line 63 – Column 23, line 3). Grant discloses a system for failure recovery where in the detection of failure in a system where data is lost (Column 4, lines 42 – 51) sending a request for state of a session information (Column 4, line 67 – Column 5, line 2). It would have been obvious to one or ordinary skill in the art at the time the invention was made to use Grant's teaching in the combination of Cohen and Bhattacharya in order to allow the external processor to recover the data that was lost as result of a fault (Column 2, lines 46 – 65).

Claims 10 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen in view of Bhattacharya as applied to claims 1-4, 6-9, 11-15, 20-24, 26-29, 30-34, and 39-40 above, and further in view of Gai (6651096).

Regarding claim 10 and 29, Cohen in view of Bhattacharya does not explicitly indicate transmitting a control message comprises transmitting a control message to establish a configuration of a scheduler and one or more associated output buffers in he programmable access device. Gai discloses a system for

controlling the configuration of an access device that includes making configuration changes to a scheduler and has one or more output queues (Column 6, lines 19 – 28). It would have been obvious to one or ordinary skill in the art at the time the invention was made to use Gai's teaching of configuration a scheduler on an access device in Cohen's system in order to ensure QoS treatments for data flows (Column 6, lines 18 – 21).

Response to Arguments

Applicant's arguments with respect to claims 1-40 have been considered but are moot in view of the new ground(s) of rejection.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No. 5933605 issued to Kawano, because it discloses passing packets onto different elements in a networking for further processing.

U. S. Patent No. 5737526 issued to Perasamy, because it discloses passing packets onto other routers to load balance.

U. S. Patent No. 5742607 issued Beighe, because it discloses passing packets onto a central processor.

U. S. Patent No. 6570884 issued to Connery, because it discloses a packet filter which identifies and passes packets.

U. S. Patent No. 6836462 issued to Albert, because it discloses an access device with central management.

U. S. Patent No. 6157955 issued to Narad, because it discloses an access device with control messages to an external processor.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bates whose telephone number is (571) 272-3980. The examiner can normally be reached on 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KB

KB
August 5, 2005

SALEH NAJJAR
PRIMARY EXAMINER